

a case now under treatment in which the head was affected. He used hyoscyamine in the crystalline form, and had found it so reliable as a palliative that no other drug was required in his experience. Even in severe cases the tremor was lessened by means of it.

DR. PETERSEN referred to the fact that when in the Poughkeepsie asylum, while administering the hydrobromate of hyoscyamus for headache, he had incidentally relieved the tremor of *paralysis agitans*.

DR. WEBER thought that Charcot's rule for the involvement of the head would be found in the main correct. General shaking would move the head, but tremor of the intrinsic muscles he thought rare. In regard to Dr. Rockwell's case, he would hesitate about pronouncing a cure. Paralysis not infrequently presented intermissions of a year or two, but would ultimately return. In regard to the hyoscyamine, he had tried it some years ago; possibly the quality had not been as good as that now obtained. He would again give it a trial in the crystalline form.

NEW YORK NEUROLOGICAL SOCIETY.

Meeting of June 5th, 1888.

The President, Dr. GEORGE W. JACOBY, in the Chair.

NOTES ON THE PRINCIPLES OF CRANIOMETRY.

Dr. FREDERICK PETERSEN read a paper thus entitled. After a review of craniometric nomenclature, the reader stated that, while individual convolutions exerted no specific influence upon the bones of the head, the shape of the skull was modified in correspondence with the gross divisions of the brain beneath it. The left temporal bone was said to be depressed in congenital aphasia. In infantile spastic hemiplegia there was flattening of the side of the skull opposite the paralyzed part. Cerebral localization had been con-

cerned mainly with motor and sensory functions. Ideational localization had yet to be developed. In his own opinion, the temporo-sphenoidal lobes, and perhaps the occipital, contained cortical centres for depressing emotions. Musical ideas and auditory memories had their origin in the temporo-sphenoidal lobes. Benedikt had reduced craniometry to a science, showing that the skull was built upon crystallographic principles. The measurements taken should be sufficient to reconstruct the skull. Triangulation of the skull should be required in asylums in the case of every patient, and in prisons in the case of every criminal. We were behind European countries in this matter. Even in Italy, fourteen measurements were required for asylum records. The reader thought that eleven measurements at least should be made: 1. The circumference of the skull. 2. The naso-occipital arc. 3. The naso-bregmatic arc. 4. The bregmatic-lambdoid. 5. The binauricular. 6. The antero-posterior diameter, taken from the glabella to the maximal occipital point. 7. The greatest transverse diameter. 8. The binauricular diameter. 9. The two auricular-bregmatic radii. 10. The facial length. 11. The greatest height of the skull. Only a pair of calipers, a tape-measure, and a strip of lead two feet long were required. For more detailed measurements other instruments were necessary. Benedikt's calipers were recommended. The pathological and forensic importance of such measurements was shown by the fact that minimal and maximal dimensions were more common among the insane and criminal classes than among other people. The bregmatic-lambdoid arc was said to be shortened in epilepsy. The reader referred to a hundred cases of his own observed at Hudson River State Hospital, at Poughkeepsie, in which asymmetry had been observed.

PROGRESSIVE MUSCULAR ATROPHY IN ANÆSTHESIA.

Dr. J. A. BOOTH reported the case of a man, forty-two years of age, a shoemaker by trade, who was still under observation. There was no family history of nervous dis-

orders, nor any history of alcoholism or syphilis in the case. The patient had been married eighteen years, and had had two children; one, a girl of five, had never walked. The affection had commenced in October, 1878, with general weakness and weakness in the arms and hands. In January, 1879, the patient's voice had commenced to be husky. Six months later he complained of a feeling of cold and numbness in the left shoulder and side of the neck, with subsequent decrease in size. The atrophy, commencing in the deltoid, had spread to other muscles of the trunk and upper extremities. At the present time the patient weighed 155 pounds. There was marked sinking in of both shoulders, also weakness of the upper extremities, with marked atrophy of the interossei. There were scars and abrasions about the hands and a scar on the neck. The patient stated that he did not know where these injuries had been received, that he had not felt them. There was no ataxia of the gait or upon standing. The voice was harsh, and the left side of the palate was paretic, the uvula being drawn to the right. The larynx had been examined by Dr. A. H. Smith. The left superior constrictor, the left palato-pharyngeus, and the adductors of the left vocal band were paralyzed. There was slight deviation of the tongue to the right. There were marked fibrillary contractions in the atrophied muscles. The patellar reflexes were exaggerated. There was sluggishness of the accommodation, but no change in the visual field and no diplopia. Taste, smell, and hearing were not impaired. It was apparently a case of progressive muscular atrophy with bulbar symptoms. The reader called attention to the sensory impairment as an unusual complication, and suggested, to account for the anæsthesia and analgesia, a lesion in the peduncle or pons on the right side.

Dr. STARR remarked that the anomaly mentioned had been recorded by Ross and by Gowers in their text-books. In cases of this character, post-mortem examinations had shown abnormal cavities in the cord, due chiefly to the degeneration of gliomatous tumors. Schultze had described cases, Bäumler also in her article upon syringomyelia. The

case reported by Dr. Booth was, in the speaker's opinion, a case of this kind. The fact that the senses of touch, pain, and temperature were all abolished would support this view. The sense of touch sometimes escaped in syringomyelia, but not always. The three tracts were found in the formatio-reticularis of the medulla and pons, and extended through at least one-fourth of its extent. A lesion affecting them all would involve also the cranial nerves passing through this part. The symptoms reported could be more satisfactorily explained by a lesion in the cord and by considering the case as one of syringomyelia.

DEGENERATION OF THE PERIPHERAL NERVES IN LOCO-MOTOR ATAXIA.*

Dr. J. C. SHAW reported the case of a man, forty-seven years old, who had a typical locomotor ataxia. Following an attack of hæmaturia, he had two epileptic seizures, and had died the following day. At the post-mortem examination the haemorrhage was found to have come from the right kidney. Pieces of the sciatic, plantar, and popliteal nerves had been removed for examination, part of the specimens being stained with osmic acid and part with bichromate of potassium solution. Changes were found which the reader considered distinct from the Wallerian degeneration. These changes consisted in granular degeneration, liquefaction, and even absorption of the myeline sheath, with persistence of the axis-cylinder and in some places a collapsed sheath of Schwann.

* For full report of the case see page 433.